

**Notice of Allowability**

Application No.

09/821,694

Examiner

Frank W. Lu

Applicant(s)

HILLIS, WILLIAM DANIEL

Art Unit

1634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/18/2005.
2. ☒ The allowed claim(s) is/are 1,6-24,27-31,33-39,117 and 118.
3. ☒ The drawings filed on 28 March 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 2/2005 and 3/2005.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

***Reasons for Allowance***

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ms. Karan Canana (Reg. No. 42,382) on March 15, 2005.

2. The application has been amended as follows:

Add the phrase "and are complementary with the target nucleic acid analyte" between the phrase "having a variable position" in line 5 of claim 1 and the phrase "wherein on at least one of the at least two oligonucleotide probe" in line 6 of claim 1.

Add the phrase "on the target sequence segment" between the phrase "at the position of interest" in lines 13 and 14 of claim 1 and the phrase "and further wherein none of the at least two oligonucleotide probes hybridizes to the target nucleic acid analyte" in lines 14 and 15 of claim 1.

Replace "a complementary nucleotide" in line 13 of claim 1 with --- a nucleotide---.

Replace "a nucleotide" in line 17 of claim 1 with --- the nucleotide---.

Replace "the target sequence" in line 3 of claim 7 with --- the target sequence segment --.

3. The following is an examiner's statement of reasons for allowance:

Claims 1, 6-24, 27-31, 33-39, 117, and 118 are allowable in light of the applicant's amendments filed on February 18, 2005 and the examiner's amendments. The closest prior art in the record are Senapathy (US Patent No. 6,521,428, filed on November 4, 1999), Drmanac *et al.*,

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(US Patent No. 6,297,006, priority date: October 2, 2001), Santamaria *et al.*, (US Patent No. 5,578,443, published on November 26, 1996), Vesnaver *et al.*, (Proc. Natl. Acad. Sci. USA, 88, 3569-3573, May 1991), Dattagupta (US Patent No. 5,215,899, published on June 1, 1993), Walt *et al.*, (US 2001/0029049 A1, filed on April 6, 1999), Ackley (US Patent No. 5,728,532, published on March 17, 1998), and Hill *et al.*, (Proc. Natl. Acad. Sci. USA, 95, 4258-4263, April 1998). These prior art do not teach that the variable position is occupied by a degenerately base pairing nucleotide analog selected from the group consisting of dP and 8-oxo-dG as recited in claim 1. These prior art either alone or in combination with the other art in the record do not teach or reasonably suggest a method of employing oligonucleotide probes to obtain information on a position of interest on a target sequence segment of a target nucleic acid analyte which comprises all of the limitations recited in claim 1.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. Papers related to this application may be submitted to Group 1600 by facsimile transmission. Papers should be faxed to Group 1600 via the PTO Fax Center. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993)(See 37 CAR § 1.6(d)). The CM Fax Center number is (571)273-8300.

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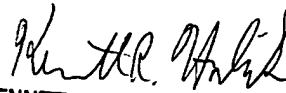
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Lu, Ph.D., whose telephone number is (571)272-0746.

The examiner can normally be reached on Monday-Friday from 9 A.M. to 5 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, W. Gary Jones, can be reached on (571)272-0745.

Any inquiry of a general nature or relating to the status of this application should be directed to the Chemical Matrix receptionist whose telephone number is (703) 308-0196.

Frank Lu  
PSA  
March 17, 2005

  
KENNETH R. HORLICK, PH.D.  
PRIMARY EXAMINER  
3/17/05